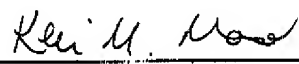


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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to 'Mail Stop AF, Commissioner for Patents P O Box 1450 Alexandria VA 22313-1450' [37 CFR 1.6(a)]</p> <p>on _____</p> <p>Signature _____</p> <p>Typed or printed name _____</p>		Application Number	Filed
		10/685,636	10/15/03
		First Named Inventor	
		Bedell et al.	
		Art Unit	Examiner
		2811	H.K. Vu
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>			
<p>I am the</p> <p><input type="checkbox"/> applicant/inventor</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/98)</p> <p><input checked="" type="checkbox"/> attorney or agent of record Registration number <u>36,597</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34 Registration number if acting under 37 CFR 1.34 _____</p>		<p> Signature</p> <p><u>Kevin M. Mason</u> Typed or printed name</p> <p><u>(203) 255-6560</u> Telephone number</p> <p><u>November, 2006</u> Date</p>	
<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			
<p><input type="checkbox"/> *Total of _____ forms are submitted.</p>			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P O Box 1450, Alexandria, VA 22313-1450

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

5 **Patent Application**

Applicants(s): Bedell et al.
Case: YOR920030340US1
Serial No.: 10/685,636
10 Filing Date: October 15, 2003
Group: 2811
Examiner: H.K. Vu

Title: Techniques for Layer Transfer Processing

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MEMORANDUM IN SUPPORT OF
 PRE-APPEAL BRIEF REQUEST FOR REVIEW

20

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
25 Alexandria, VA 22313-1450

Sir:

30 The present invention and prior art have been summarized in Applicants' prior responses.

STATEMENT OF GROUNDS OF REJECTION

 The present patent application was filed on October 15, 2003 with claims 1-48. Claims 12-48 were withdrawn from consideration in response to a previous restriction requirement. Claims 1-11 are presently pending in the above-identified patent application.
35 Claims 1-8 and 10-11 are rejected under 35 U.S.C. §102(b) as being anticipated by Sakaguchi et al. (U.S. Patent No. 6,306,729) and claim 9 is rejected under 35 U.S.C. §103(a) as being unpatentable over Sakaguchi et al..

ArgumentsInformation Disclosure Statement

The Examiner asserts that the IDS filed on June 16, 2006 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance of each patent listed that is not in the English language.

Applicants propose to resolve the consideration of the cited patents upon resolution of the pre-appeal.

Independent Claim 1

Independent claim 1 is rejected under 35 U.S.C. §102(b) as being anticipated by Sakaguchi et al. In particular, the Examiner asserts that Sakaguchi discloses a carrier substrate (11) having a porous region (13, 33, 43) with a tuned porosity in combination with a species (doped) positioned therein defining a separation plane in the carrier substrate. The Examiner further asserts that the term “implanted” is method recitation in a device claimed and that, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The Examiner asserts that Sakaguchi discloses the porous region is doped by diffusion, ion implantation or epitaxial growth.

Applicants note that Sakaguchi teaches a doped layer 12 (col. 3, lines 40-48, and col. 18, lines 44-52). Sakaguchi teaches that the “*porous layer 13* that operates as a separation layer shows a *uniform dopant concentration*.” (Col. 4, lines 19-22; emphasis added.) Independent claim 1 emphasizes that the carrier substrate has a porous region with a tuned porosity in combination with *an implanted species* positioned therein defining a separation plane in the carrier substrate.

First, Applicants assert that the “implanted species” limitation in claim 1 is a valid limitation for a structure claim, notwithstanding the Examiner’s position in the original Office Action. The Examiner asserts that the “implanted species” limitation is a method recitation in a device and that the patentability of a product does not depend on its method of production. Applicants submit, however, that the “implanted species” limitation in claim 1 is not a method recitation nor merely an indication of the method of production. Rather, as discussed more fully below, the “implanted species” limitation clearly defines a

characteristic of the structure itself. As such, the “implanted species” limitation is a valid limitation for a structure claim.

Applicants further submit that the “implanted species” limitation more particularly points out and distinctly claims the invention, consistent with Section 112. The scope and meaning of the “implanted species” limitation is well defined and well understood by a person of ordinary skill in the art.

As indicated above, the “implanted species” limitation clearly defines a *characteristic* of the structure itself. The present disclosure teaches, for example, that

double-implantation layer techniques may comprise the following steps. A first implantation with boron is performed, followed by a second implantation with a group IVB species, such as silicon. The second implantation is targeted to implant a thinner region than the first implantation to create a sharp interface definition.

Activation of the boron implant by annealing is performed followed by anodization of the silicon to create the two regions of different porosity. An important aspect of the techniques provided herein is that to obtain various porosities, the anodization process does not have to be altered, i.e., the whole anodization process is performed at the same conditions (one anodization step). *Another benefit is that well controlled tunability of the process is accomplished by **varying the amount, i.e., dose and the position, i.e., depth of the implanted ions**, providing needed stability of this bi-layer during further decal processing, but at the same time, enabling easy separation when release process is required.* This well controlled tunability is essential to enable the structure to withstand the various processing steps required for the formation of the device, interconnect and packaging structures in the decal layer while it is still supported on the carrier substrate. (Page 8, line 15, to page 9, line 4; emphasis added.)

This characteristic is not shown or suggested by Sakaguchi et al. As well understood by a person of ordinary skill, an implantation of a species into a carrier substrate creates a unique distribution of the species in the substrate. For example, implantation infers that the species is positioned at certain locations within the substrate (e.g., the species has a Gaussian distribution); doping does not provide for positioning a species at certain locations within the doped region. The degree of porosity (i.e., the “tuned porosity”) tracks this distribution. In other words, the porosity is tuned in accordance with the implantation profile. The implantation defines the separation plane. In other words, the separation plane in the carrier substrate is defined by having a porous region with a tuned porosity in combination with an

implanted species positioned therein, as set forth in claim 1. Sakaguchi, alternatively, teaches a *uniform distribution with characteristics that are defined by the doping process*.

Thus, Sakaguchi et al. do not disclose or suggest a “carrier substrate having a porous region with a tuned porosity in combination with *an implanted species* positioned therein defining a separation plane in the carrier substrate,” as required by claim 1. As such, reconsideration and withdrawal of the rejections is thus respectfully requested

Claim 2

Claim 2 is rejected under 35 U.S.C. §102(b) as being anticipated by Sakaguchi et al. Regarding claim 2, the Examiner asserts that the limitation “the separation plane is defined by a position and an amount of the implanted species” is a method recitation in a device claim.

Applicants note that the position and amount of the implanted species is a characteristic of the separation plane and is therefore *not a method recitation*. Applicants can find no disclosure or suggestion in Sakaguchi of a separation plane that is defined by a position and an amount of the implanted species.

Thus, Sakaguchi et al. do not disclose or suggest wherein the separation plane is defined by a position and an amount of the implanted species, as required by claim 2.

Claim 6

Claim 6 is rejected under 35 U.S.C. §102(b) as being anticipated by Sakaguchi et al. Regarding claim 6, the Examiner asserts that Sakaguchi discloses that “the porous region comprises a varied porosity.”

Applicants note that, regarding layers 33 and 34, Sakaguchi teaches that

the obtained multilayer structure is then separated by any of the above-listed techniques (Step S5, FIG. 6). Since the porous layer comprises a plurality of *sub-layers 33, 43 having different respective porosities* in this embodiment, the separation of the two articles will be easier and the technique of causing a fluid jet stream to hit a lateral side (edge) of the multilayer structure will advantageously be used.
(Col. 18, line 66, to col. 19, line 6; emphasis added.)

Applicants note that Sakaguchi teaches *two different layers of different porosity*. Applicants can find no disclosure or suggestion in Sakaguchi that the *porous region comprises a varied porosity*, as defined in the art and as well understood by a person of ordinary skill in the art.

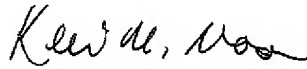
Thus, Sakaguchi et al do not disclose or suggest wherein the porous region comprises a varied porosity, as required by claim 6

Given the above remarks, Applicants respectfully submit the all the pending claims, i e , claims 1-11, are in condition for allowance and such favorable action is earnestly
5 solicited

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,



Date: November 27, 2006

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